

GALLIUM NITRIDE BASED COMPOUND SEMICONDUCTOR LIGHT-EMITTING ELEMENT

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Inventor: OKU YASUNARI; KAMEI HIDENORI

Applicant: MATSUSHITA ELECTRIC IND CO LTD

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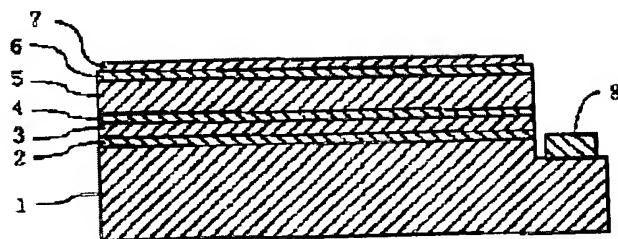
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Abstract of JP2000174341

PROBLEM TO BE SOLVED: To obtain new structure, wherein light distribution characteristic directly above a light-emitting element is improved and light emission intensity can be maintained high, in a light-emitting element wherein a substrate composed of gallium nitride based compound semiconductor is used and this substrate side is made a main light-emitting surface.

SOLUTION: This semiconductor light-emitting element is provided with a double heterostructure, including a substrate 1 composed of N-type gallium nitride based compound semiconductor and an active layer 3 containing In, and an electrode connected with the substrate 1. An intermediate layer 2, in which electron density is less than 1×10^{16} cm $^{-3}$ is constituted between the substrate 1 and the active layer 3. As a result, an electrode to be arranged on the main light-emitting surface side is made unnecessary, and the light distribution can be made uniform.



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